

**APPARATUS AND METHODS FOR PROCESSING COMPOSITE COMPONENTS
USING AN ELASTOMERIC CAUL**

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ABSTRACT OF THE DISCLOSURE

Apparatus and methods for processing composite components using an elastomeric
caul are disclosed. In one embodiment, a method includes forming a prepreg material on a
10 non-planar portion of a lay-up mandrel, and providing an elastomeric caul over the prepreg
material in an initial position such that a first portion of the elastomeric caul is proximate the
prepreg material on the lay-up mandrel, and a second portion of the elastomeric caul adjacent
the first portion is spaced apart from the prepreg material. Next, a pressure is reduced within
a space disposed between the elastomeric caul and the lay-up mandrel proximate the non-
15 planar portion. Simultaneously with the reducing of the pressure with the space, the
elastomeric caul is stretched into a second position such that the second portion of the
elastomeric caul is drawn proximate to at least one of the prepreg material and the lay-up
mandrel.

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